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ATTACHMENT A
VPDES PERMIT REISSUANCE APPLICATION
ADDENDUM REVISIONS

VPDES PERMIT APPLICATION ADDENDUM – SUPPLEMENTARY INFORMATION



A. General Information

1. Entity to whom the permit is to be issued: Western Virginia Water Authority
Who will be legally responsible for the wastewater treatment facilities and compliance with the permit? This may or may not be the facility or property owner.
2. Classify the discharge as one of the following by checking the appropriate line:
 - X a. Existing discharge
 - b. Proposed discharge
 - c. Proposed expansion of an existing discharge

B. Location

1. Is this facility located within city or town boundaries? (Y) N
2. (New Issuances & Modifications Only) What is the tax map parcel number for the land where this facility is located? N/A
3. For the facility to be covered by this permit, how many acres will be disturbed during the next five years due to new construction activities? 7 (estimated)
4. What is the total acreage of the property on which the treatment plant is located? 110 Acres
5. Give the minimum elevation of the treatment plant site. 877.5 feet
6. Flood elevations of the treatment plant site:
 - 25 year flood 907 feet
 - 100 year flood 912 feet
7. Attach to the back of this application a location map(s) which may be traced from or is/are a production of a U.S. Geological Survey topographic quadrangle(s) or other appropriately scaled contour map(s). The location map(s) shall show the following: See Attached Site Location Map and Facility Layout Map
 - a. Treatment Plant
 - b. Discharge point
 - c. Receiving waters
 - d. Boundaries of the property on which the treatment plant is located, or to be located.
 - e. Distance from the treatment plant to the nearest: (Indicate "not applicable" for any distance greater than 2000 feet)
 - ii. Residence 100 feet
 - iii. Distribution line for potable water supply On Property
 - iv. Reservoir, well, or other source of water supply Not Applicable
 - v. Recreational area 700 feet (Walking Trail)
 - f. Distance from the discharge point to the nearest (Indicate "not applicable" for any distance greater than 15 miles)
 - ii. Downstream community 5.6 miles (Smith Mountain Lake residences)
 - iii. Upstream and downstream water intake points Not Applicable
 - iv. Shellfishing waters Not Applicable
 - v. Wetlands area Not Applicable
 - vi. Downstream impoundment 1.7 miles (Niagara Impoundment)
 - vii. Downstream recreational area 5.6 miles (Smith Mountain Lake)



C. Discharge Description

1. Provide a brief description of the wastewater treatment scheme. Also, attach to the back of this application, a process flow diagram showing each process unit of the treatment plant, including all bypass piping and all backup power sources or redundancy in the system.

See Attachment B.3 and Process Flow Diagrams

2. What is the design average flow of this facility? 55 MGD
3. In addition to the above design flow or production level, should the permit be written with limits for any other discharge flow tiers or production levels? (Y) / N

If "Yes", please specify the other flow tiers (in MGD) or production levels: 62 and 72
Please consider: Is your facility's design flow considerably greater than your current flow? Do you plan to expand operations during the next five years?

4. Nature of operations generating wastewater: POTW

85 % of flow from domestic connections/sources
Number of private residences to be served by the wastewater treatment facilities:
0 1-49 X 50 or more

15 % of flow from non-domestic connections/sources

5. Mode of discharge: X Continuous Intermittent Seasonal
Describe frequency and duration of intermittent or seasonal discharges:

Potential wet weather discharges from Outfall 003 (EQ Basin Overflow) and Outfall 010 (Influent Pump Station Bypass)

6. Identify the characteristics of the receiving stream at the point just above the facility's discharge point:

X Permanent stream, never dry
 Intermittent stream, usually flowing, sometimes dry
 Ephemeral stream, wet-weather flow, often dry
 Effluent-dependent stream, usually or always dry
 Lake or pond at or below the discharge point
 Other: _____



D. Anticipated Phasing Schedule for Plant Capacity – Proposed / Expanding Discharges

If this application is for a proposed or expanded discharge(s), complete the phasing schedule below beginning with the year in which construction completion is anticipated and progressing in increments of 5 years for 30 years thereafter.

Proposed Design Capacity 62 and 72 MGD

Anticipated Date of Construction Completion: _____
Month Year

Years after Completion	Projected Flow (MGD)
0	38
5	40
10	40
15	45
20	45
25	50
30	50

E. Interim Facilities

Are the wastewater treatment facilities interim? (designed for a useful life of less than 5 years)

_____ Yes ☒ No

If so, provide the estimated date to be discontinued (month, year) _____, and the name and location of the intended replacement facility.

Name / Location

WESTERN VIRGINIA WATER AUTHORITY
Effluent Temperatures from Toxicity Reports

Season	Date	Temp (°C)
Winter	2/12/2004	16.2
	2/13/2004	15.8
	2/14/2004	14.7
	2/15/2004	13.7
	2/16/2004	16.3
Winter	2/13/2005	13.6
	2/14/2005	14.1
	2/15/2005	14.6
	2/16/2005	13.6
	2/17/2005	12.4
Fall	10/30/2005	18.7
	10/31/2005	18.6
	11/1/2005	18.4
	11/2/2005	17
	11/3/2005	18.1
Summer	6/19/2006	21.2
	6/20/2006	21.5
	6/21/2006	21.9
	6/22/2006	22.7
	6/23/2006	22.3
Fall	11/26/2007	14.4
	11/27/2007	15.1
	11/28/2007	15.2
	11/29/2007	14.2
Spring	5/4/2008	17.4
	5/5/2008	17.7
	5/6/2008	17.8
	5/7/2008	17.8
	5/8/2008	18.4

Winter	Summer
Average	Average
14.5	21.92